Letter 21

From: "dave fraser" <w.d.fraser@worldnet.att.net>
To: WADNR.SMTP("tena.gagnon")
Date: Monday, April 08, 2002 12:17:34 AM
Subject: Glacier Northwest Mats Mats Bay Quarry DEIS

(the following comments are also attached as a pdf file)
April 7, 2002

Gordon Gibbs,

Washington DNR

411 Tillicum Lane,

Forks, WA 98331.

Re: Glacier Northwest Mats Mats Bay Quarry DEIS

Dear Mr. Gibbs,

We are writing to offer comments on the proposal to update the existing Department of Natural Resources (DNR) Surface Mining Reclamation Permit (#70-010170) for the Mats Mats Quarry Operation.

We are particularly concerned with potential increases in the hours of operation and rate of extraction of rock from the quarry. Our concerns focus on two areas. 1- the impacts of noise on waterfowl and on the aesthetic quality of the human environment, and 2- the impact of air borne dust deposits, and water borne sediment deposits on the shellfish of Mats Mats bay, particularly as it may effect the productivity of our oyster farm on the bay.

Noise Impacts:

Noise and waterfowl:

Section 3.4 page 3.4- lists a few of the birds that inhabit the Mats Mats area. As shoreline residents of Mats Mats bay we have observed that the area hosts a large variety of waterfowl, including heron, kingfishers, mergansers, osprey, Canadian geese, widgeons, bufflehead ducks, mallard ducks, cormorants, bonapart gulls and glaucous gulls, as well as other raptor species including hawks, osprey and eagles. However, the EIS really inadequately explores the impact of the quarry mining activities on the bird communities. 1

If Glacier NW is allowed to increase operating hours, this will have a particular impact on a colony of heron that use Mats Mats bay. We have counted between 15-20+ heron feeding in the tide flats at the northwest end of the bay during the day time. At the approach of dusk the heron cross to the east side of the bay to the trees on the perimeter buffer of the quarry and roost there. This diurnal use pattern would be seriously disrupted by night-time operation of the quarry. 2

Noise and the Human Environment:

Increased hours of operation would also disrupt the aesthetic quality of the human environment through noise pollution. Residents of the Mats Mats bay area have co-existed with the quarry for many decades. However, the fact the quarry operations have been generally been limited to normal working hours is a factor which has been capitalized into the property values of the residential properties in the Mats Mats area. The contribution of a quiet environment after normal working hours to evening relaxation and to a good night's sleep are important elements of the what makes Mats Mats bay a particularly desirable place

to live.

As noted in table 3.5-1, noise levels in excess of 50db are on the boundry between sleep interference and speech interference. The comparison to "light auto traffic in a quiet residential area" misses the point that the 36" jaw crusher generates relatively continuous noise pollution, punctuated by the occasional very loud blasting, as well as by 60-70db noise spikes when rock is added to the hopper (page 3.5-8).

Page 3.5-11 states, "No processing (jaw crusher, portable plant and grizzly) would occur prior to 7 a.m. Based on the measurements taken to date and the proposed mitigation, limiting crushing and operation of the portable plant and grizzly plant to the hours between 7 a.m. to 7 p.m. would ensure that continued quarry operations will meet County noise limits." It is not clear whether this is a "trust me" statement, or whether this would be an explicit condition of the permit. 3

Recommendations for permit requirements re: noise impacts:

1- The section on mitigation suggests measures that would be taken including relocation of the 42" jaw crusher. These mitigation measures should be explicit requirements of the permit. 4

2- Additionally, as a condition of the permit, simultaneous use of the 36" and 42" jaw crushers should not be allowed, as the cumulative impacts would exceed those described in the EIS. 5

3- Additionally, if the 36" jaw crusher continues to be used, relocation measures as per those proposed for the 42" jaw crusher should be required as a permit condition. 6

4- Blasting, jaw crushing, portable plant operations and grizzly operations should be limited to the hours of 8 AM to 6PM Monday through Friday. 7

Dust and Sediment Impacts:

On page S-1 of the EIS it states:

"No increase in mining rate is proposed; the rate of extraction would fluctuate with market conditions, as it has historically."

However, it is not clear from the document that the permit will limit the operation to a fixed tonnage of rock extraction per year based on past practices. If the market conditions 'fluctuate' what prevents the quarry from shifting from a 40 hour week to a 'round the clock' operation? Increased hours of operation implies a proportional increase (up to threefold) in the intensity of impacts from the existing baseline. As noted on page 3.3-9, 8

" If surface water flows from excavation and processing areas were not controlled, these factors could combine to create a risk of sediment movement and transport to Mats Mats bay. The amount of sediment with potential to transport is a function of the duration of excavation activities.

The steep slopes and soils of moderate erodability in the study area could mobilize sediments to Mats Mats bay if sediment release was uncontrolled."

Additionally, page 16 of Appendix III states :

"The only possible area of concern is due to relatively high nitrate-nitrogen levels being released to Mats Mats bay. The relatively high levels would not directly affect fisheries resources. However, high nitrogen levels could lead to increased phytoplankton growth and a resultant decrease in dissolved oxygen (DO) and other water quality parameters during periods when Mats Mats bay was stratified or had low turnover rates. This could lower aquatic habitat quality of the bay."

"Dust produced by rock processing, blasting, and vehicle traffic could potentially settle in regional water

bodies in sufficient quantity to have an affect on aquatic habitat and species. Very fine sediments, which elevate turbidity for a sustained period, can directly affect fish behavior and physiology, or indirectly decrease food supply, habitat availability, or the ability of fish to find prey (Lloyd 1987). Turbidity can also exacerbate existing problems, such as poor DO or high temperatures, and lower fish tolerance to other water quality stresses."

Dust and sediment impacts on shellfish:

Section 3.4.1 page 3.4-12 deals with the marine community, however this section is woefully inadequate relative to shellfish. The only shellfish mentioned is geoducks. Oysters are never considered anywhere within the EIS (nor are Dungeness crab, also found in Mats Mats bay.) This is a glaring deficiency of the EIS given that Mats Mats bay is the site of a commercial oyster farm, as well as numerous private use beaches. 9

We are the owners of the Mats Mats bay Oyster Farm located on the north end of the bay. The commercial oyster farm was formerly operated by Joe Daniels until his death. Although the license for the farm lapsed after his death, we have renewed it pending the completion of water quality testing by the Department of Health.

In the process of conducting our cooperative water quality sampling program with the DOH, we row around the perimeter of the bay collecting samples at several stations (we also row around the bay regularly for pleasure.) In the course of our sampling we have frequently observed a film of gritty dust floating on the surface of the water when it is calm. We have particularly noticed this in the vicinity of the 'old' loading slip on the west side of the quarry, near the 36" jaw crusher.

The channel into Mats Mats bay as shown in the 'corrected' appendix III in Fig. 4 - Surface Deposition Depth of Aerial Borne Dust on an Annual Basis (in millimeters) - is at the epicenter of the 'dust bowl.' According to Fig. 4, this area receives up to 19 mm of dust annually. (Note that the data presented in Fig. 4 is inconsistent with the description of the same data presented in the text, and shows significantly higher rates of dust deposition than the text describes.)

Our oyster farm is just around the corner from the channel (and the dust bowl epicenter) and is shown to receive 3 mm of dust deposition annually according to Fig. 4. However, the tidal currents would bring in the cumulative impact of additional dust deposits from the channel in addition to the wind borne dust that settles out of the atmosphere.

Last summer we set out clean oyster shells on plastic mesh webbing as a media for the settling of oyster spat. Within a few days these shells were covered with a layer of sediment sufficient to make the shell stock unsuitable for the attachment of oyster spat. We are concerned that the quarry may be the source of these suspended sediments in the water (either from deposition of airborne dust, or from discharge of run off water at the 'old' loading slip), and that they may impact the productivity of the oyster beds on our private tidelands. We believe the question of dust and sediment in discharge water deserves close monitoring. 10

Recommendations concerning dust impacts:

1- Because the EIS is premised upon the opening statement that: "No increase in mining rate is proposed," any permit issued based upon this analysis should carry with it an explicit condition that the output of the quarry be limited to the average annual tonnage of rock removed during the base line study period (which appear to be 1997-2001.) Without such a restriction, the EIS does not constitute an adequate document for issuance of a permit under which the rate might increase. 11

2- Before a new permit is granted, more detailed study should be made of samples of the dust deposits that are sometimes found floating on the surface of the water in the channel near the 'old' loading slip. 12

3- Before a new permit is granted an analysis should be conducted on the potential impact of dust sediment on shellfish populations in Mats Mats bay. 13

4- A rigorous monitoring program should be maintained to confirm that discharge actual air borne dust and water borne sediment do not exceed the rates projected in the study and that the current rates do not negatively impact the shellfish and other marine biota of Mats Mats bay. 14

Thank you for the consideration of our comments. Please contact us if you have any questions about this letter.

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Response to Letter 21

FRASER, DAVE

1. Several of the bird species listed in this comment letter were addressed in the Plants and Animals section and Appendix II. Specifically, Section 3.4.2 (and Table B.2) of Appendix II lists several species associated with saltwater habitats observed during field reconnaissance of the site, including double-crested cormorant, herring gull, northern shoveler, great blue heron, and belted kingfisher. In addition, Section 3.4 of Appendix II notes that local references suggest that over 60 species of birds could use the beach and open water habitats bordering the project site. Moreover, Section 3.5 of the Plants and Wildlife Assessment discusses the occurrence of State listed Priority species for the site and vicinity, including bald eagle, great blue heron, osprey, and others.

   The Plants and Animals section of this EIS address impacts of the proposed mining and reclamation plans on wildlife and plant communities, including State listed and Priority species. The proposed plan would not expand the mining area, only the depth. Thus, other than loss of early successional communities within the existing quarry area, which is already disturbed, the proposed mining plan would not result in additional significant adverse impacts on plant communities or wildlife habitat. The perimeter buffer communities and shoreline habitats would remain undisturbed. Consequently, no direct impacts to birds and other wildlife occupying the shoreline and bay habitats are expected.

   The Proposed Action would not increase hours of daily quarry operations, currently from 7:00 AM to 7:00 PM. The number of trips per year to load the gravel onto barges on the eastern edge of the site may increase; however, the maximum number of daily trips would remain the same. The waterfowl and other wildlife observed or noted in the comments currently use the area in the context of the current levels of mining activity, which suggests that they area habituated to the daily quarry activity. Given that the level of mining activity is expected to remain essentially the same, significant adverse impact on waterfowl or other wildlife using the shoreline or bay habitats are not anticipated from the noise associated with the mining operations, barge loading activities, or from the number of daily barge trips.

2. Comment acknowledged. The proposal would not increase daily hours of quarry operations; operations would continue as they are currently from 7:00 AM to 7:00 PM. As noted in response to comment 1 of this letter, the number of annual trips in loading product onto barges may increase, but the frequency of trips on a daily basis would remain the same and from the same location. The comment indicates that a group of herons feeds on the tide flats at the northwest end of Mats Mats Bay and at dusk move to the east side of the bay, along west perimeter buffer of the quarry to “roost” there. Communal roosts are not typical for herons outside of the breeding season (April through July), and there are no known nesting colonies in the immediate vicinity of the site. As indicated in Appendix II, the nearest known rookeries are located over three miles south of the site. These colonies, the Port Ludlow Bay colony and the Port Ludlow

colony, were active in 1999, and 2001, respectively; additional information is not known for 2002 (pers. comm. J. Brookshire, WDFW, November 25, 2002).

Based on antidotal information, the current heron activity along the perimeter of the quarry appears to be associated in part with a local bait farm located on the east side of Mats Mats Bay south of the site. Herons have been observed foraging in the bay and perching in trees along the shoreline and in the trees near the bait farm in the evening and early morning. Because the birds roost in these trees outside of the breeding season and no nests have been observed, it is likely that the birds perch in these stands due to the proximity to the foraging areas, including the bait farm and Mats Mats Bay. Heron activity in vicinity of the bait farm tends to diminish in late fall with the seasonal closure of the bait farm.

Nevertheless, the herons have been observed in and around the quarry and appear to be habituated to the quarry activity. As stated in Appendix II, approximately 12 herons have been observed hunting, resting, and flying over various parts of the site. Herons are commonly seen perching within the quarry on large boulders, and the conveyor systems during the day while the quarry is active. Winter quarry operation occurs until after sunset (7:00 AM to 7:00 PM), and the birds continue to perch in the same areas on the west perimeter of the quarry, on the east shore of the bay.

Because the quarry activity is an existing use to which the herons have apparently become habituated, and the proposal would not increase the hours or general level of mining activity on a daily basis, adverse impact to great blue herons are not anticipated.

3. Comment acknowledged. Please refer to Response to Letter 4 (Jefferson County), comment 60 and Response to Letter 7 (Mats Mats Area Coalition – March 7) comments 90 and 92. Please also refer to the *Noise* section of this Final EIS for an additional measure to require additional noise monitoring after the type or location of equipment is changed.

4. Comment acknowledged. Please refer to Response to Letter 4 (Jefferson County), comment 60.

5. Comment acknowledged. Please refer to Response to Letter 4 (Jefferson County), comment 60 and Response to Letter 7 (Mats Mats Area Coalition – March 7) comments 90 and 92. Please also refer to the *Noise* section of this Final EIS for an additional measure to require additional noise monitoring after the type or location of equipment is changed.

6. Comment acknowledged. Please refer to Response to Letter 4 (Jefferson County), comment 60 and Response to Letter 7 (Mats Mats Area Coalition – March 7) comments 90 and 92. Please also refer to the *Noise* section of this Final EIS for an additional measure to require additional noise monitoring after the type or location of equipment is changed. The 36” Jaw would not operate after establishment of the 42” Jaw.

7. Comment acknowledged. Proposed extraction and reclamation activity would take place between 7 a.m. and 7 p.m., Monday through Friday, consistent with provisions in the Jefferson County Unified Development Code.

8. Production at the Mats Mats Quarry is currently limited by equipment and facility capacities, and barge exports are limited by loading area constraints. No change from these historic conditions are proposed. Annual production rates identified in the EIS are based on the historic mean. However, the environmental analyses prepared for this EIS address conditions under full operation. The proposal does not propose any change in operating hours.

9. Comment acknowledged. The *Plants and Animals* section of this Final EIS has been revised to acknowledge the commercial and private oyster beds found in Mats Mats Bay. Because no significant impacts to water quality were identified for the *Proposed Action*, significant impacts to commercial shellfish operations are not anticipated.

   In regards to the labeling of Figure 4 of *Appendix III*, Associated Earth Sciences, Inc. (AESI), the authors of the *Appendix III*, correctly described the content of Figure 4 in the text discussion; however they mislabeled the actual figure. The air quality consultant (MFG) prepared the dispersion modeling analysis and AESI utilized the results and the figures from it in their discussion. The Figure 4 title should be "Surface Deposition in grams per square meter per year". A property just inside the Bay would receive approximately 0.2 mm of dust deposition per 100 years. Please refer to the Air Quality and *Surface Water* sections of this Final EIS for detail on dust deposition.

10. Please refer to response to comment 12 of this letter.

11. Comment acknowledged. Please refer to response to comment 8 of this letter.

12. Mine discharge in the future was evaluated by the performance of the system ugraded by Glacier Northwest, Inc. to treat water subsequent to its purchase of the property in 1996, because this same system is proposed for future treatment under all mining alternatives. Based on turbidity and TSS results from the NPDES General Permit monitoring over the past five years, it is not expected that turbidity and TSS would measurably change as the result of continued mining. Turbidity samples collected during two site visits in May and June 2002 (A.C. Kindig & Co.) were within the background and the Class AA standards for Mats Mats Bay, and similar to turbidity measured in Mats Mats Creek at the same time. Turbidity would be continued to be monitored bi-monthly from the S-1 and M-1 outfall and TSS would continue to be monitored quarterly from the M-1 outfall as required under the NPDES Sand and Gravel General Permit. Based on a dust deposition analysis performed for the EIS, dust deposition was determined to be insignificant in terms of accumulation over the lifetime of the mine; see Response to Letter 7 Mats Mats Area Coalition – March 7, comment 64. Other than spills from product transfer by truck or barge (to Admiralty Inlet), there are no other means for sediments to reach marine waters from the quarry. It is possible that the sediments noted are a result of tidal action and past silt deposition in the Mats Mats slip, prior to Glacier's acquisition of the mine.

13. Please refer to Response to Letter 2 (Department of Fish and Wildlife), comment 1.

14. Please refer to the Response to Letter 4 (Jefferson County), comment 20 for a discussion on why fugitive dust monitoring was not conducted.